

REMARKS

Claims 1-3, 5-9, 11-51 and 53-83 are currently pending in this application. Claims 12-16, 18-21, 24-27, 29-32, 35-50, 54-58, 60-63, 66-69, 71-74 and 77-80 were withdrawn due to a previous restriction requirement. Claims 1, 11, 17, 51, 53, 59, and 81-83 are currently amended. No new matter is added. Claims 2, 3, 22-23, 28, 33-34, 64-65, 70, and 75-76 are original. Claims 5-9 were previously presented. Claims 4, 10 and 52 are canceled.

Claims 1-3, 5-11, 17, 28, 33, 34, 51-53, 59, 64, 65, 70, 75, 76, 81, and 82 are rejected under 35 U.S.C. § 112, first and second paragraphs, as failing to comply with the written description requirement and as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 1-3, 5-11, 51-53, and 83 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 3,478,408 to Brown (hereinafter "Brown"). Claims 17, 22, 23, 28, 59, 64, 65, 70, 81, and 82 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of U.S. Pat. No. 4,523,447 to Sticht et al. (hereinafter "Sticht"). Claims 33, 34, 75, and 76 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Sticht, further in view of U.S. Pat. No. 5,865,051 to Otzen et al. (hereinafter "Otzen"). Applicants hereby traverse the rejection and respectfully request reconsideration in view of the remarks set forth below.

I. Summary of Telephonic Interview

Applicants Michael DeFranks (Inventor) and Todd Mitchem (on behalf of Dreamwell, Ltd., the Assignee), and Applicants' representative Vasanth Sarathy thank Examiner Bonk for her time and courtesies extended during the telephonic interview on September 17, 2009. During the interview, Applicants first gave Examiner Bonk a broad overview of the background, the technical problem being solved and claimed solution. Applicants and Applicants' representative also described the differences between Brown (and other cited references) and the claimed invention. Applicants and their representative contended, more specifically, that Brown did not disclose, among other things, the claim limitation of a wired holder rotatable about a "holding axis" in

addition to having a reel that is rotatable about a "reel axis." No agreement was reached. Applicants' representative proposed amending the claims to more particularly recite, among other things, that the wire holder includes a coupling that allows it to freely rotate about a holding axis. Examiner Bonk welcomed the proposed amendment, but the Examiner nevertheless required Applicants' representatives to put their amendments in writing for his consideration. Applicants' representative also summarized responses to the §112 rejections set forth by Examiner Bonk.

I. The 35 U.S.C. § 112 Rejections of the Claims

Claims 1-3, 5-11, 17, 28, 33, 34, 51-53, 59, 64, 65, 70, 75, 76, 81, and 82 stand rejected under 35 U.S.C. § 112, first and second paragraphs.

A. The Rejections under 35 U.S.C. § 112, First Paragraph

In the 35 U.S.C. § 112, first paragraph rejections of the above claims, the Examiner alleged that "[t]he subject matter not properly described in the specification is 'rotate freely' and 'free rotation' of the wire holder" (Action, p. 2). Applicants respectfully disagree. "The subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement" (MPEP § 2163.02). Applicants contend that support for these limitations do appear in the specification as filed. For example, paragraph [0034] states that the feeder spool assembly is provided with "an additional degree of rotational freedom . . . [which] allows the wire to rotate in response to the rotational torque being applied to the . . . wire." Paragraph [0038] discloses "a coupling device 220 that responds to the torsional torque in the multi-strand wire 213 by rotating in accordance with the direction of the torsional torque." Paragraph [0040] states that "the axis 219 is selected to allow torque acting on the wire 213 to cause the spool 211 and mounting brace 217 to rotate," and that "any axis orientation capable of allowing the spool 211 to rotate in response to the applied torque may be employed." Paragraph [0041] states that "[a]s the torque increases, the force of the torque may cause the wire spool 211 and mounting brace to rotate about the axis 219," that "the ball bearing coupling device 220 will not support a torque," and

that "the coupling 220 serves as a passive device that allows the torque generated by the coiler 212 to cause the wire holder to rotate." Applicants submit that one of ordinary skill in the art would understand the preceding passages to refer to a coupling that can "rotate freely" and is capable of "free rotation" in response to a torque. Therefore, Applicants submit that the subject matter of "rotate freely" and "free rotation" is properly described in the specification as filed, and respectfully request that the 35 U.S.C. § 112, first paragraph rejections be withdrawn.

B. The Rejections under 35 U.S.C. § 112, Second Paragraph

In the 35 U.S.C. § 112, second paragraph rejections of the above claims, the Examiner alleged that "the limitations about 'torque' are indefinite because there is no structure or limitation set forth in order to determine torque" (Action, p. 3). However, torque is generally understood to mean a "turning or twisting force" (Webster's II New College Dictionary, 3rd ed.). In the original specification as well as in a previous response to an Office Action, Applicants have noted that twisted multistranded wire have knurled exterior surfaces that cause them to fray and/or fracture when being pulled from traditional wire holders. This fraying/fracturing occurs as a result of the torque acting about the cross-section of the wire that causes the wire to twist and rotate. To solve at least this problem, Applicants have invented a novel system that rotates freely depending on this torque. Claim 1, more precisely, refers to the "torque acting about a cross-section of the [twisted multistranded] wire." This torque or twisting force acting on the wire is reduced when the wire holder rotates freely. The Office Action alleges that there is nothing in the claims to "determine" or calculate this torque. Applicants respectfully disagree. The independent claims recite a wire holder with a coupling that either allows or is supported to allow the wire holder to rotate freely in response to a torque. Applicants submit that the wire holder, which is recited in the claim, reflects the torque "acting about a cross section of wire," which is also recited in the claim, because, as stated earlier, any such torque will cause the wire holder to rotate. Hence, Applicants submit that the above claims do "particularly point out and distinctly claim the subject matter which applicant regards as the invention." For at least this reason, Applicants respectfully request that the 35 U.S.C. § 112, second paragraph rejections be withdrawn.

II. The 35 U.S.C. § 102(b) Rejections of the Claims

Claims 1-3, 5-11, 51-53, and 83 are rejected under 35 U.S.C. § 102(b) as being anticipated by Brown. According to the MPEP, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" (MPEP 2131). Brown fails to describe or suggest each and every element of the independent and dependent claims.

Amended independent claim 1 is generally directed to an apparatus for manufacturing coil spring from a wire. The apparatus includes a coil-spring winder and a wire holder. The wire holder includes a reel that can rotate around a reel axis. The wire holder is supported by a coupling, along a holding axis, that allows the wire holder to rotate freely about the holding axis, in response to a torque acting about a cross section of the wire. This rotation substantially alleviates the torque accumulated in the wire. Independent claims 51 and 83 are directed to similar subject matter as claim 1. Support for these amendments can be found throughout the originally filed application, including originally filed claim 10 and the originally filed figures.

Brown fails to describe this subject matter. Specifically, Brown fails to describe a wire holder that can rotate about a holding axis to substantially alleviate torque accumulated in the wire, as recited in the claims. The Office Action states that Brown discloses a "coupling (28 and 30) that allows the wire holder to rotate freely about a holding axis (Column 2, lines 32-36 and Column 3, lines 50-55)." The Office Action further states, while rejecting claim 10, that "Brown also discloses . . . a reel (28) holding a supply of the wire, the reel being rotatable about a reel axis." Applicants respectfully disagree.

Brown merely discloses a wire supply spool that is rotatable about only one axis, and not rotatable about a holding axis to substantially alleviate torque accumulated in the wire:

Referring now to the drawings, the invention has been illustrated, by way of example, in FIG. 1 as embodied in a spring forming unit 10 mounted on a rigid stand 11 having a base 12 and arranged to provide a coiled spring 13 wrapped tightly about a thin plastic tube 14 which is fed through a central passage in unit 10. The assembly 10 includes a cylindrical support 15 rigidly and securely attached to the base column 11 and having a ring or sun gear 16 rigidly secured to its opposite end. A tool

holding assembly 17 is mounted on a cylindrical shaft 18 for rotation within the cylindrical support 15. In order to facilitate the rotation of the shaft 18 it is mounted in roller bearings 20 and 21 at either end of the cylindrical support 15 (Brown, col. 3, lines 29-42, emphasis added).

The wire supply of Brown is "mounted about the support 15 . . . so that the spool is free to rotate about the support 15" (*id.*, col. 3 lines 51-53). Specifically, the roller bearings 20 and 21 facilitate rotation of the spool 28 about an axis along shaft 18. The spool 28 cannot rotate about any other axis because the support 15 is "rigidly secured" to rigid stand 11 with a base 12. Therefore, Brown does not describe another axis about which the spool or wire holder can rotate that is different from the axis associated with cylindrical support 15, and hence does not describe both a reel axis and a holding axis, as recited in the claims.

Because Brown does not show a spool 28 as being able to rotate about a reel axis as well as a holding axis, Brown's system does not reduce torque as stated in the claims. In fact, the only mention of torque in Brown is in relation to torque applied to bend a wire (*id.*, col. 5 line 61). Brown does not contemplate that a torque may act about a cross section of a multistranded wire, nor does Brown contemplate any way of reducing this torque, much less reducing this torque as Applicants state in the claims.

Therefore, Brown does not describe or suggest each and every limitation of independent claims 1, 51, or 83. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejections of claims 1, 51, and 83. Since claims 2-3, 5-9, 11, and 53 each depend from one of claims 1 and 51 and add further limitations thereto, Applicants also respectfully request that the 35 U.S.C. § 102(b) rejections of these dependent claims be withdrawn.

III. The 35 U.S.C. § 103(a) Rejections of the Claims

Claims 17, 22, 23, 28, 59, 64, 65, 70, 81, and 82 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Sticht. Claims 33, 34, 75, and 76 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Sticht, further in view of Otzen.

Brown, Sticht, And Otzen Do Not Show a Coupling That Allows The Wire Holder To Rotate Freely In Response To a Torque Acting About a Cross-Section Of a Wire

Claims 17, 22, 23, 28, 33-34, 59, 64-65, 70, and 75-76 each depend from one of independent claims 1 and 51 and add further limitations thereto. Claims 81 and 82 are independent. For an office action to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." See also MPEP § 2143. Applicants respectfully submit that the combination of Brown, Sticht, and Otzen fails to teach or suggest the claimed subject matter.

As discussed above, Brown fails to describe a wire holder that rotates freely in response to a torque acting about a cross-section of a wire, wherein the rotation substantially alleviate the torque accumulated in the wire, as recited in independent claims 1 and 51. Sticht fails to bridge the gap and make up for the lack of teaching in Brown. As with Brown, Sticht does not contemplate that a torque may act about a cross section of a wire, and hence Sticht cannot contemplate any way of reducing this torque, much less Applicants' inventive system for torque reduction. Moreover, as discussed in Applicants' previous reply, Otzen fails to teach or suggest a wire holder that rotates freely in response to a torque. For at least these reasons, Brown, Sticht, and Otzen, alone or in combination, fail to teach the subject matter of claims 1 and 51. Since claims 17, 22, 23, 28, 33-34, 59, 64-65, 70, and 75-76 each depend from one of claims 1 and 51 and add further limitations thereto, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejections of these dependent claims.

Independent claims 81 and 82 are directed to similar subject matter as claims 1 and 51, and recite a wire holder, including a reel rotatable around a reel axis, supported for free rotation in response to a torque acting about a cross section of a wire, wherein rotation of the holder substantially alleviate the torque accumulated in the wire. As described above, Brown, Sticht, and Otzen, alone or in combination, fail to teach this subject matter. For at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejections of claims 81 and 82.

IV. Conclusion

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

We believe we have appropriately provided for fees due. However, if there are any other fees due in connection with the filing of this submission, please charge the fees to our Deposit Account No. 18-1945, under Order No. SMCY-P01-101 from which the undersigned is authorized to draw.

Dated: September 21, 2009

Respectfully submitted,

By /Vasanth Sarathy/
Vasanth Sarathy
Registration No.: L0365
ROPES & GRAY LLP
One International Place
Boston, Massachusetts 02110-2624
(617) 951-7000
(617) 951-7050 (Fax)
Agent For Applicants